Approved Facility Schools Safety Net Curriculum
Math Grades 9-12

Algebra 1	Geometry	Algebra 2	Pre-Calculus
SSE.1-2 Define parts of expressions, interpret expressions, and rewrite expressions. CAS 2.3.a.i and 2.3.a.ii	CO.6 Use definitions and geometric descriptions of rigid motions to transform figures and predict the effect of a given rigid motion on figures. CAS 4.1.b.i	SSE.2 Use the structure of an expression to identify ways to rewrite it. CAS 2.3.a.ii	VM.6-12 Organize data into matrices, perform operations, and use matrices in applications.
APR.1 Perform addition, subtraction, and multiplication with polynomials. CAS 2.3.c.i	CO.7 Develop and write congruency statements for two figures by matching corresponding parts of figures. CAS 4.1.b.iii	SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. CAS 2.3.b.i	VM.4-5 Perform operations on vectors such as adding, subtracting, and multiplying by a scalar.
CED.1 Solve problems by creating equations and inequalities. CAS 2.4.a.i	CO.9-11 Prove geometric theorems about lines, angles, triangles and parallelograms. CAS 4.1.c	SSE.4 Derive the formula for the sum of a finite geometric series and use the formula to solve problems. CAS 2.3.b.ii	VM.3 Solve problems involving velocity and other quantities that can be represented by vectors.
CED.2 Create and graph equations in two or more variables. CAS 2.4.a.ii	SRT.1 Verify experimentally the properties of dilations given by a center and a scale factor. CAS 4.2.a.i	APR.2 Define and apply the Remainder Theorem. CAS 2.3.d.i	REI.8-9 Solve a system of equations using matrices.
REI.1 Justify steps in solving equations using properties of equality. CAS 2.4.b.i	SRT.2 Use the definition of similarity to determine if two figures are similar. CAS 4.2.a.ii	APR.3 Identify zeros of polynomials and use zeros to construct a rough graph. CAS 2.3.d.ii	

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REI.3-4 Solve linear and quadratic equations in one variable. CAS 2.4.c.i and 2.4.c.ii	SRT.4-5 Prove theorems about triangles; use congruence and similarity criteria to solve problems and to prove relationships in geometric figures. CAS 4.2.b.i and 4.2.b.iii	REI.1 Justify steps in solving equations using properties of equality. CAS 2.4.b.i	
REI.10-12 Represent and solve equations and inequalities graphically. CAS 2.4.e	SRT.6 Define trigonometric ratios and solve problems involving right triangles. CAS 4.2.c	REI.2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. CAS 2.4.b.ii	
IF.1 Recognize when a relation is a function and when a graph is a function. CAS 2.1.a.i	SRT.7 Explain and use the relationship between the sine and cosine of complimentary angles. CAS 4.2.c.ii	IF.4 Interpret key features of a graph modeling the relationship between two variables and sketch graphs using key features. CAS 2.1.b.i	
ID.6 Solve problems given in function notation. CAS 3.1.b.ii.1	SRT.8 Solve right triangles in applied problems using trigonometric ratios and Pythagorean Theorem. CAS 4.2.c.iii	IF.6 Calculate and interpret the average rate of change of a function over a specified interval. CAS 2.1.b.iii	
ID.7 Interpret the slope and y-intercept given real world data. CAS 3.1.c.i	GPE.4-7 Use coordinates to prove simple geometric theorems algebraically. CAS 4.3.a.ii	BF.1 Write a function that describes a relationship between two quantities. CAS 2.1.d.i	

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ID.8 Compute and interpret the correlation coefficient of a linear fit. CAS 3.1.c.ii	MG.1, MG.3 Apply geometric concepts to describe objects and solve design problems. CAS 4.5.a.i and 4.5.a.iii	BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms. CAS 2.1.d.ii	
		IC Make inferences and justify conclusions from sample surveys, experiments, and observational studies. CAS 3.2.b	

Personal Financial Literacy

CAS 1.2.a.iv   Describe factors affecting take-home pay and calculate the impact

CAS 1.2.a.v   Design and use a budget, including income (net take-home pay) expenses (mortgage, car loans, and living expenses) to demonstrate how living within your means is essential for a secure financial future

CAS 1.2 Inquiry question 2 – How much money is enough for retirement?

CAS 1.2 Inquiry question 3 – What is the return on investment of post-secondary educational opportunities?

CAS 2.1 Relevance and Application – Knowledge of how to interpret rate of change of a function allows investigation of rate of return and time on the value of investments.

CAS 2.2.d.i Analyze the impact of interest rates on a personal financial plan

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CAS 2.2.d.ii Evaluate the costs and benefits of credit CAS 2.2.d.iii Analyze various lending sources, services, and financial institutions CAS 2.2 Inquiry question 3 – Which financial applications can be modeled with exponential functions? Linear functions? CAS 2.2 Inquiry question 5 – How much would today's purchase cost tomorrow? CAS 3.3.c Analyze the cost of insurance as a method to offset the risk of a situation CAS 3.3 Inquiry question 3 – How does probability relate to obtaining insurance? CAS 3.3 Relevance and Application – Comprehension of probability allows informed decision-making, such as whether the cost of insurance is less than the expected cost of illness, when the deductible on car insurance is optimal, whether gambling pays in the long run, or whether an extended warranty justifies the cost.			